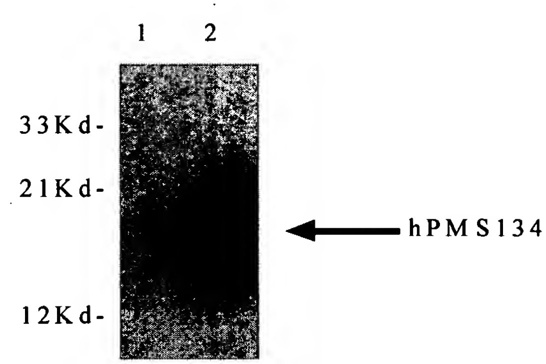

FIGURE 1.
Western blot analysis of IPTG-induced DH10B bacteria expressing the empty vector (lane 1) or hPMS134 dominant negative gene (lane 2). Lysates from bacteria were loaded onto SDS-PAGE gels and probed with an antibody against the human PMS2 N-terminus.

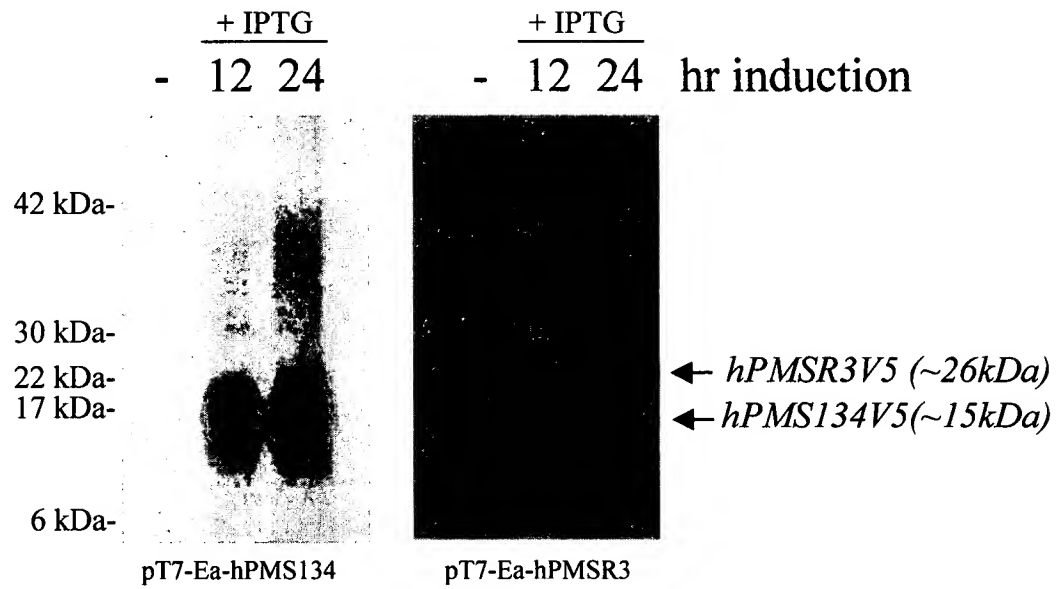

Figure 2.
Western blot of PMS134V5 and PMSR3V5 in IPTG-treated (+) and untreated (-) samples in BL21 bacteria. Blots were probed with an anti-V5 antibody which is directed to the C-terminal tag of each protein.

PMS134 Expressing bacteria produce KAN^r phenotype

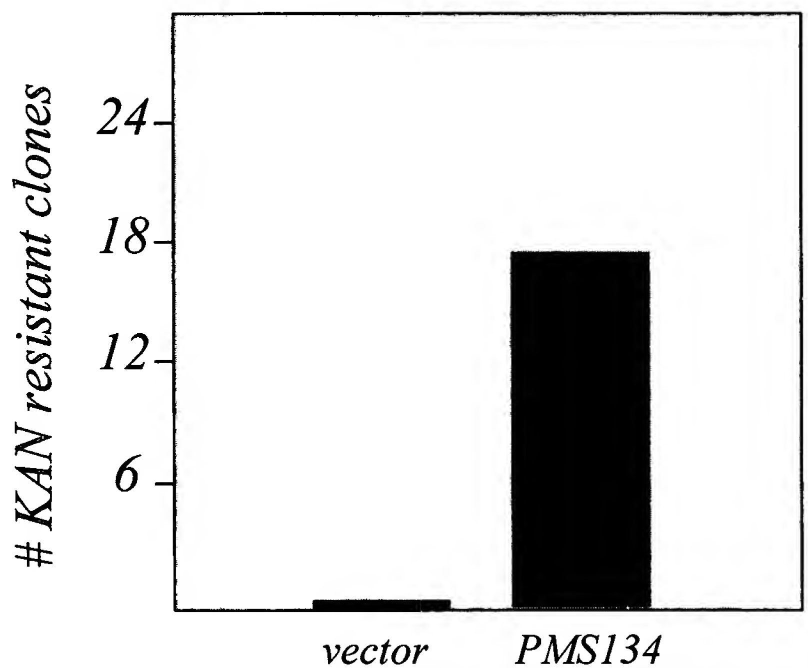

Figure 3. Number of Kanamycin Resistant PMS134 and vector control DH10B clones. IPTG-induced strains were grown and plated onto AMP and KAN plates and grown for an additional 18 hours at 37°C to identify number of KAN resistant clones due to genetic alteration.

PMS134 and PMSR3 expressing bacteria produce KAN^r phenotype

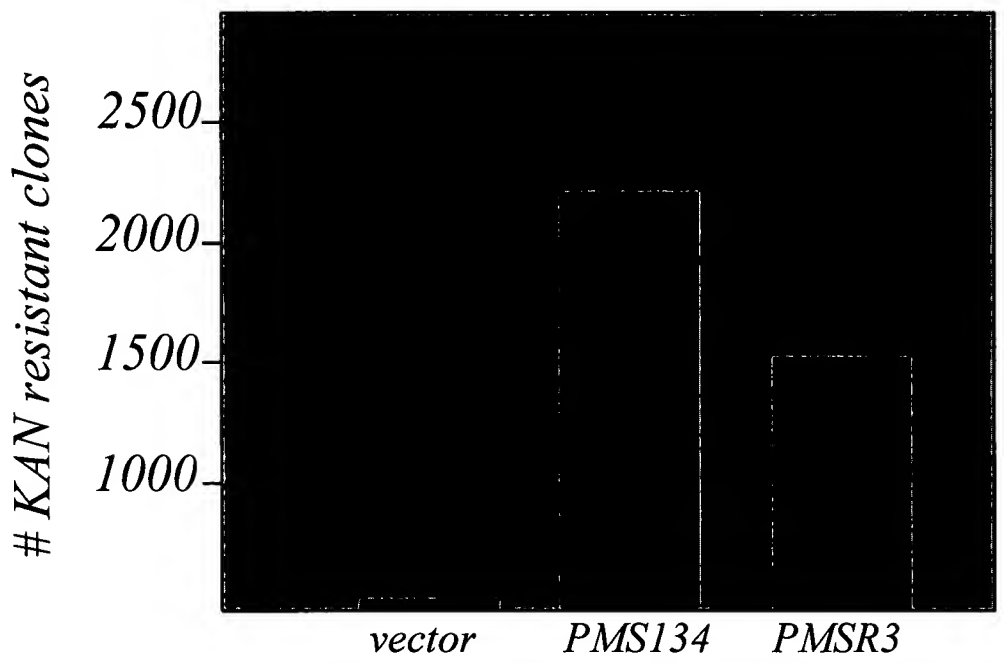

Figure 4. Number of Kanamycin resistant PMS134, PMSR3 and vector control BL21 clones. IPTG-induced strains were grown and plated onto KAN plates and grown for 18 hours at 37°C to identify number of KAN resistant clones due to genetic alteration.

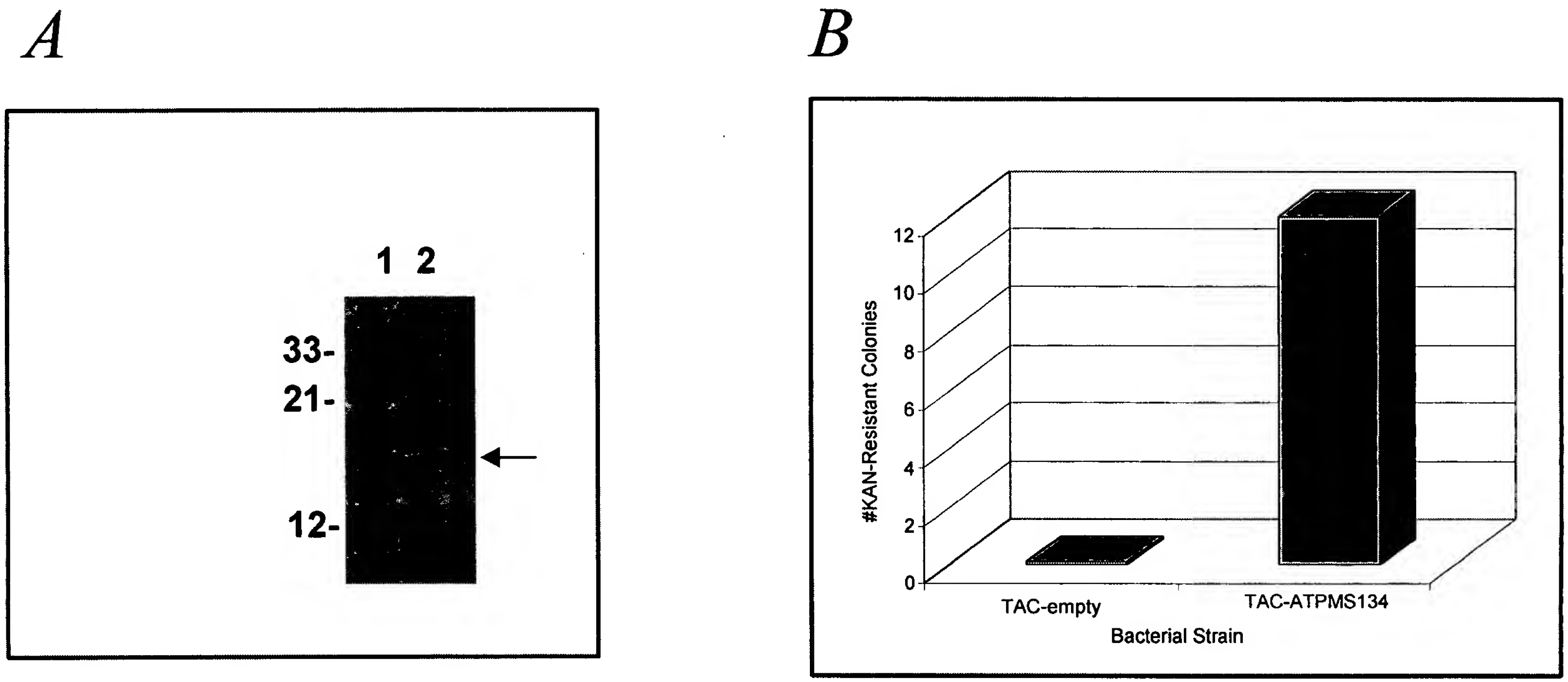

Figure 5. **(A)** Western blot of steady-state ATPMS134flag in IPTG-treated samples in DH10B bacteria. Lysates from control cells (lane 1) and a bacterial clone expressing the *Arabidopsis thaliana* PMS134 truncated protein with a FLAG epitope fused to the C-terminus (ATPMS134flag) (lane 2) were electrophoresed on SDS-PAGE gels. Blots were probed with an anti-FLAG monoclonal antibody directed to the FLAG epitope. (B) Number of Kanamycin Resistant ATPMS134flag and vector control DH10B clones. IPTG-induced strains were grown and plated onto AMP and KAN plates and grown for an additional 18 hours at 37°C to identify number of KAN resistant clones due to genetic alteration.

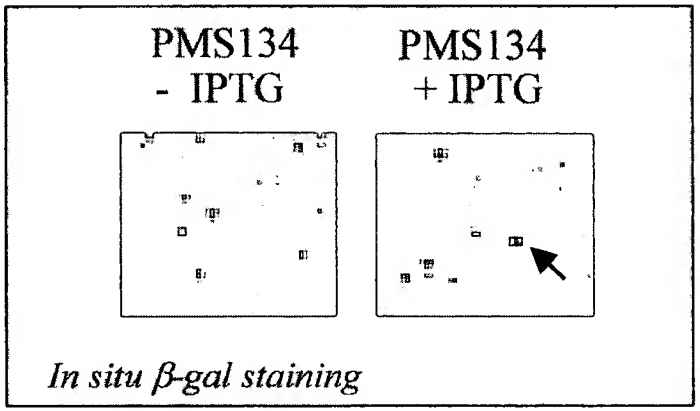

Figure 6.
Generation of high recombinant producer BGAL-MOR lines in PMS134 expressing DH5alpha host strains.
DH5alpha cells containing pTLACZ and TACLACPMS134 were grown with (+) or without (-) IPTG and plated onto LB-Xgal-agar plates
Arrow indicates clones containing pTLACZ and TACLACPMS134 with enhanced β-galactosidase levels *in situ.*